UNIVERSITI PUTRA MALAYSIA

LABOUR SKILL, TRADE STRUCTURE AND COMPARATIVE ADVANTAGE OF MALAYSIA'S MANUFACTURING INDUSTRIES, 1978-1996

MOHAMMED SHARIF BASHIR MOHAMMED

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By

MOHAMMED SHARIF BASHIR MOHAMMED

Thesis Submitted in Fulfilment of the Requirement for the Degree of Doctor of Philosophy in the Faculty of Economics and Management
Universiti Putra Malaysia

March 2001

DEDICATED TO MY BELOVED PARENTS,
MY WIFE, MY KIDS AWFA, ARWA AND ASLAM
AND MY BROTHER ASLAM BASHIR

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

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Chairman : Associate Professor Dr. Zakariah Abd. Rashid

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As a small open economy, Malaysia's development strategy is best formulated with the view of trade-production paradigm. Its development targets should be driven by the condition of demand. A supply-driven approach is not only technically non-feasible, but also will frustrate development efforts and bring about destabilising effects in the long term. In the context of the recent East Asian crisis, failure to recognise the important force of the external sector has gradually eroded economic fundamentals of the economies.

Although a capital-intensive technique of production leads to higher labour productivity, the rate of increase in the physical capital accumulation has to match with that of human capital. In order not to frustrate the external account, skill requirement could be estimated by equalising the skill content for producing trade flows. In this way

human capital requirements are integrated into the external account and thus ensure long-term sustainability.

An input-output model is used to examine the country's resource allocation in production and trade. Also, an approach of H-O extension has been used to investigate the skill intensity of Malaysian trade by analysing skill content of exports and imports. The results found that Malaysia's comparative advantage lies in low skill while its discomparative advantage relies on the highly skilled.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan mendapatkan Ijazah Doktor Falsafah.

KEMAHIRAN PEKERJA, STRUKTUR PERDAGANGAN DAN KELEBIHAN PERBANDINGAN BAGI INDUSTRI PEMBUATAN MALAYSIA, 1978-1996

Oleh

MOHAMMED SHARIF BASHIR MOHAMMED

Mac 2001

Pengerusi: **Profesor Madya Dr. Zakariah Abd. Rashid**

Fackulti: **Fakulti Ekonomi dan Pengurusan**

Sebagai sebuah negara kecil yang mengamalkan dasar ekonomi terbuka, strategi pembagunan yang dijalankan oleh Malaysia merupakan cara yang terbaik untuk merumuskan mengenai paradigma perdagangan pengeluaran. Matlamat strategi pembangunan ini patut dilihat ke atas keadaan permintaan. Pendekatan ke atas penawaran sahaja tidak sesuai dari segi teknikal tetapi juga turut menghampakan usaha pembangunan dan memberi kesan ketidakstabilan dalam jangka masa panjang. Dalam konteks terbaru krisis di Asia Timur, adalah disebabkan oleh kegagalan untuk mengenal pasti kepentingan ke atas sektor luaran dan telah memusnahkan secara beransur-ansur asas ekonomi kepada ekonomis.

Sungguhpun teknik modal intensiti pengeluaran membawa kepada produktiviti buruh yang tinggi, kadar peningkatan dalam pengumpulan modal fizikal hendaklah bersesuaian dengan modal manusia (kemahiran). Ini tidak akan menghampakan akaun luaran, yang mana keperluan kemahiran boleh dianggarkan dengan menyamakan konteks kemahiran untuk pengaliran pengeluaran perdagangan. Dengan cara ini, modal manusia (kemahiran) hendaklah diambil kira ke dalam akaun luaran dan oleh itu, ia boleh bertahan untuk jangka masa panjang.

Kaedah input-output digunakan untuk menyelidik, pengagihan sumber negara dalam pengeluaran dan perdagangan. Ini juga melibatkan penambahan pendekatan H-O untuk menyelidik intensiti kemahiran ke atas perdagangan eksport dan import di Malaysia. Keputusan telah mendapati, faedah perbandingan (comparative advantage) banyak kepada kemahiran yang rendah manakala ketidak faedahan perbandingan (discomparative advantage) banyak kepada kemahiran yang tinggi.

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I certify that an Examination Committee met on 15th March 2001 to conduct the final examination of Mohammed Sharif Bashir Mohammed on his Doctor of Philosophy thesis entitled "Labour Skill, Trade Structure and Comparative Advantage of Malaysia's Manufacturing Industries, 1978-1996" in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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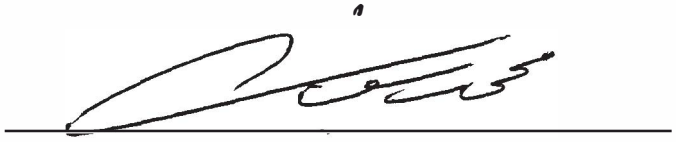
I hereby declare that the thesis is based on my original work except for quotations and citation, which have been duly acknowledged. I also declare that it has not been prviously or currently submitted for any other degree at UPM or other institutions.



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LIST OF ABBREVIATIONS

ASEAN	Association of South East Asia Nations
CPI	Consumer Price Index
DOS	Department of Statistics
EPU	Economic Planning Unit
GATT	General Agreement for Tariffs and Trade
GDP	Gross Domestic Product
GNP	Gross National Product
H-O	Heckscher-Ohlin Theory
ICOR	Incremental Capital-Output Ratio
ILO	International Labour Organisation
IMF	International Monetary Fund
IMP	Industrial Master Plan
I-O	Input-Output
ISCO	International Standard Classification of Occupation
ISIC	International Standard Industrial Classification
LDCs	Less Developed Countries
LP	Loentief Paradox
MIC	Malaysian Industrial Classification
MIDA	Malaysian Industry Development Authority
MIER	Malaysian Institute of Economic Research
MITI	Ministry of International Trade and Industry
MNCs	Multinational Corporations
MOC	Malaysian Occupational Classification
n.e.c	not elsewhere classified
NEP	New Economic Policy
NICS	Newly Industrialising Countries
NPC	National Productivity Corporation
RM	Ringgit Malaysia
PPI	Producer Price Index
SITC	Standard International Trade Classification
TFP	Total Factor Productivity
TFPG	Total Factor Productivity Growth

CHAPTER I

INTRODUCTION

This study tries to understand the process of economic development in Malaysia, particularly focussing on the issues of labour skill, comparative advantage and trade structure in the country's manufacturing industry. In this introductory chapter, we shall present a review of the theoretical background of the study, including an overview of some of the important factors contributing to the Asian Newly Industrialised Countries (NICs) economic success and general economic performance of the Malaysian manufacturing industry. The chapter will also present problem statement, objectives and significance of the study.

Asian NICs Economic Achievements

During the last three decades, the East Asian economies thrived with impressive growth rates. In order to identify the factors behind this economic achievement, we focus particularly on the common factors that have contributed to the dynamic growth process in this region. All Asian NICs are found to be equipped with sound and disciplined macroeconomic policies, besides adopting an aggressive stance towards export development. In addition, these economies are favoured by strong investment performance, particularly in the investment of human capital.

Fiscal and Monetary Policies

Some conventional indicators of macroeconomic performance are economic growth rate, unemployment rate, and current account balance and price stability. Gauging from these aggregate indicators, all East Asian economies have been favourably impressive. As shown in Table (1.1), the GDP in Hong Kong, Korea, Singapore, and Taiwan grew in the range of 7% to 10% during the past three decades.

Table 1.1: Unemployment Rates and Real GDP Growth, 1960-1996 (%)

Country	Unemployment rate				Real GDP growth	
	1960-70	1970-80	1980-89	1996	1970	1996
H. Kong	4.7	4.2	2.9	2.8	9.8	4.5
Malaysia	5.6	5.3	5.6	2.5	6.3	8.6
S. Kores	5.4	9.5	3.6	2.0	10.3	7.1
Singapore	0.6	5.4	3.6	3.0	13.7	6.9
Taiwan	7.7	6.4	2.2	2.6	4.9	5.7

Source: Asian Development Bank (1996) and Ministry of Finance (1999)

Table (1.2) shows the external balance of the East Asian NICs. Though sharing similar aggregate growth performance, each Asian NIC differed in its efforts to achieve a stable economic growth. The growth path of the Singaporean and Taiwanese economy had not been remarkably smooth. Nevertheless, Singapore succeeded in stabilising its price level. Meanwhile, similar to Taiwan, efforts to stabilise price level had been

relatively less effective in Hong Kong. It recorded a worse inflation than Korea though this was successfully brought down since 1989.

Table 1.2: External Balance (% GNP), 1970-96

Country	Current account balance				Resource balance		
	1970-75	1979-82	1990	1996	1970-80	1989	1996
H. Kong	-	-	5.0	2.2	1.0	6.4	-2.4
S. Korea	-7.4	-1.4	1.3	-4.9	-6.6	-0.1	1.5
Singapore	-1.8	-9.9	4.5	15.3	-11.1	3.3	13
Taiwan	-0.7	1.2	7.6	3.7	1.6	7.8	-4.0

Source: Asian Development Bank (1990) Annual Report

Table 1.3: Average Annul Rate of Inflation, 1965-96

Country	1965-80	1980-89	1996
Indonesia	35.5	8.3	7.9
Malaysia	4.9	1.5	3.5
S. Korea	18.4	5.0	5.0
Singapore	5.1	1.5	1.4
Thailand	6.2	3.2	5.9

Source: World Bank (1999), Development Report, Washington D.C.

Throughout the past three decades, sound fiscal policy had been the guiding force behind the economic growth in East Asia. The ability of Policy makers to choose

fiscal measures that were non-inflationary allowed the countries to increase spending in investment and public welfare programs. In recent years, these economies had managed to keep their inflation to a single digit (see Table 1.3).

Investment and savings

In the East Asia, increase in investment as a share of GDP duly resulted in favourable rose in rates of return is similarly favourable (see Table 1.4). In Indonesia, the ratio of investment to GDP rose from 5% in 1960 to 32% in 1996. This was made possible by a sharp rise in government oil revenues, of which the bulk was saved and invested. Concurrently, sizeable inflow of net foreign capital generated a relatively large current account surplus in the balance of payments when the development program failed to adjust fully to the further increase in oil revenues after mid-1979. In other Asian NICs, ratio of investment to GDP was close to 30% in 1980 a marked improvement as compared with the figures in 1960 of 11% for Korea and 14-16% for Thailand and Malaysia. Such investment rate is above the weighted average of 25% in other middle-income countries.

Policies in financial sector in these economies were aimed to encourage savings and to channel funds into activities with high social returns. Though various incentives such as positive real interest rates in the 1980s, domestic saving rates amounted to 30-40 % of GDP. Asian interest rates were set to clear markets, which not only increased the incentive to save, but also discapital flight.